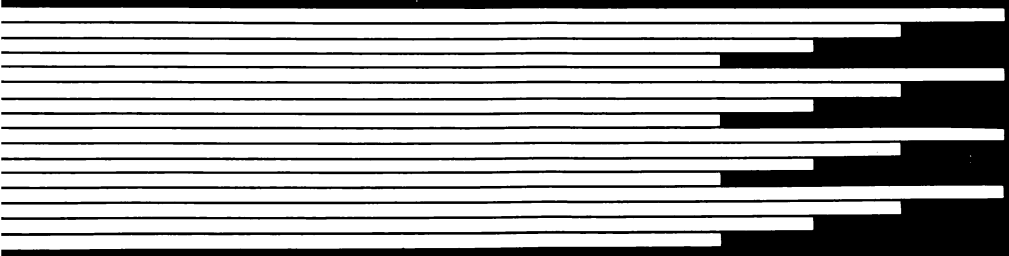
MICROSOFT®

User's Guide



Microsoft® MS-DOS®

User's Guide

Microsoft Corporation

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MS-DOS Version 3.2 Package Contents

1 disk with the following files:

ANSI.SYS
APPEND.EXE
ASSIGN.COM
ATTRIB.EXE
BACKUP.EXE
CHKDSK.EXE
COMMAND.COM
DEBUG.EXE
DISKCOMP.EXE
DISKCOPY.EXE
DRIVER.SYS
EDLIN.EXE
EXE2BIN.EXE
FC.EXE
FDISK.EXE
FIND.EXE
FORMAT.EXE
GRAFTABL.EXE
GRAPHICS.COM
IO.SYS (hidden file)
JOIN.EXE
LABEL.EXE
LINK.EXE
MODE.COM
MORE.COM
MSDOS.SYS (hidden file)
PRINT.EXE
RAMDRIVE.SYS
RECOVER.EXE
REPLACE.EXE
RESTORE.EXE
SHARE.EXE
SORT.EXE
SUBST.EXE
SYS.COM
TREE.EXE
XCOPY.EXE

3 manuals:

The MS-DOS User's Guide
The MS-DOS User's Reference Manual
The MS-DOS Programmer's Reference Manual

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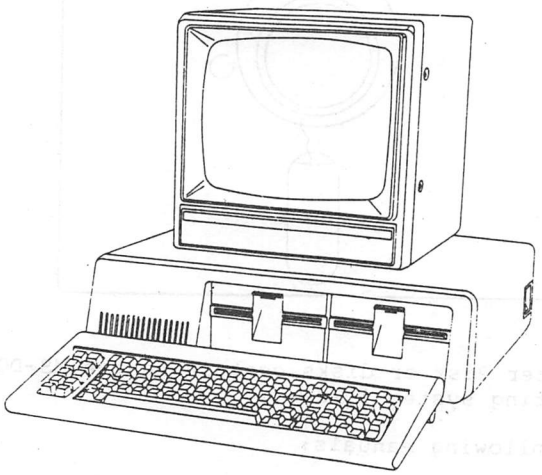
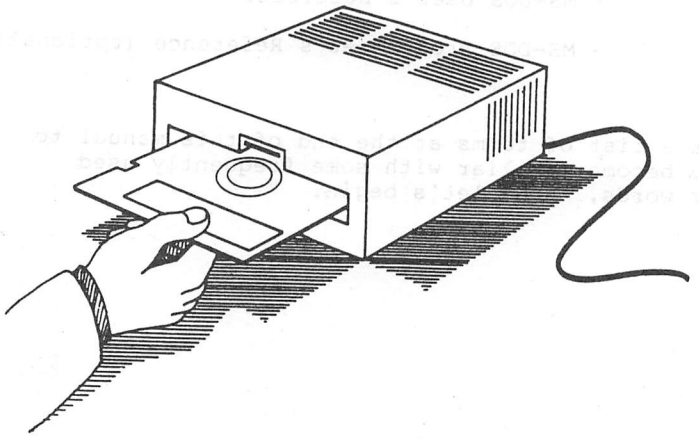
INTRODUCTION

Before You Begin...

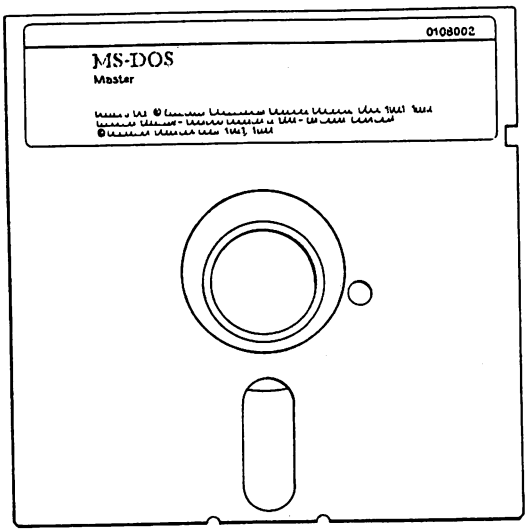
Before you begin using this book, you should have the following:



- A 16-bit computer that runs MS-DOS and a monitor (viewing screen)



- At least 1 disk drive

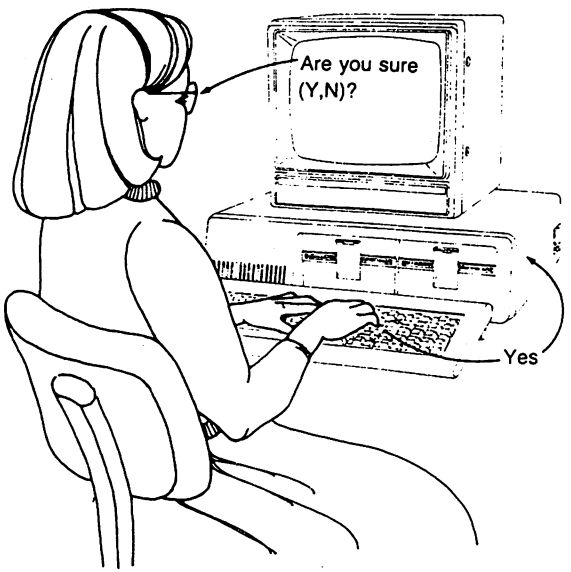


- A master disk or disks containing the MS-DOS operating system files
- The following manuals:
  - MS-DOS User's Guide (this manual)
  - MS-DOS User's Reference
  - MS-DOS Programmer's Reference (optional)

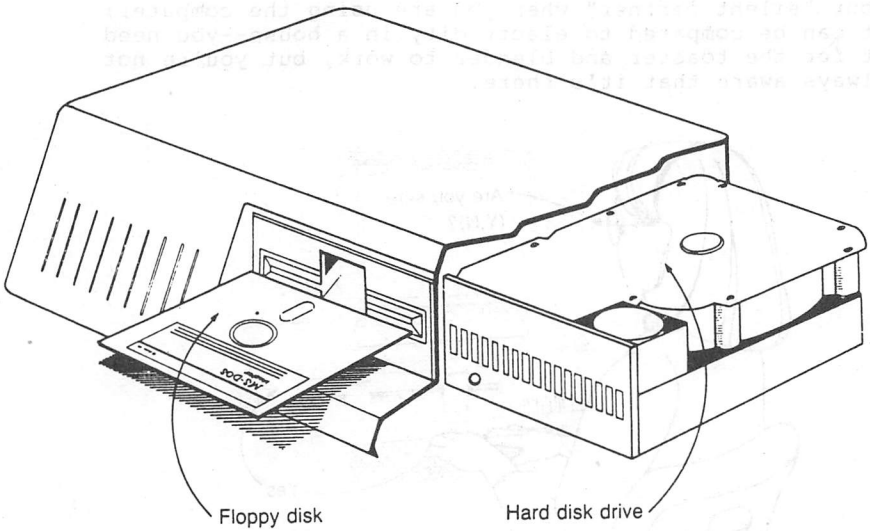
There is a list of terms at the end of this manual to help you become familiar with some frequently used computer words. Now, let's begin.

What is MS-DOS?

Microsoft's MS-DOS is an operating system. Basically, an operating system is a group of programs that act as a translator between you and your computer. MS-DOS is your "silent partner" when you are using the computer; it can be compared to electricity in a house--you need it for the toaster and blender to work, but you're not always aware that it's there.



MS-DOS is a disk operating system. That is, the programs can be used on floppy disks or hard disks. Computers with hard disks can usually store more information than machines that use only floppy disks.



You can use MS-DOS on floppy disks or hard disks.

When you load MS-DOS in your computer, you can play computer games, run programs, compose letters and reports, and run languages such as Microsoft BASIC. MS-DOS also lets you use devices such as printers and disk drives with your computer.

How to Use This Guide

This manual will help you learn and use MS-DOS. You'll learn what to do with disks, how to run programs, and how to manage information. For your protection, the first thing you should do is make a backup copy of your MS-DOS disk. You will learn how to make a backup copy of your master disk in Chapter 1 of this guide.

This guide is arranged to help you find what you need to know about MS-DOS:

If you need to know...	Turn to...
How to start MS-DOS	Introduction
What's on the disk	Introduction
How to tell MS-DOS the time	Introduction
How to tell MS-DOS the date	Introduction
How to quit	Introduction
About disks	Chapter 1
About files	Chapter 1
How to change the default drive	Chapter 2
About a command	Chapter 3
About your keyboard	Chapter 3
How to create a file	Chapter 4
How to run BASIC	Chapter 4
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About messages on the screen	Chapter 5
What a special word or phrase means	Terms

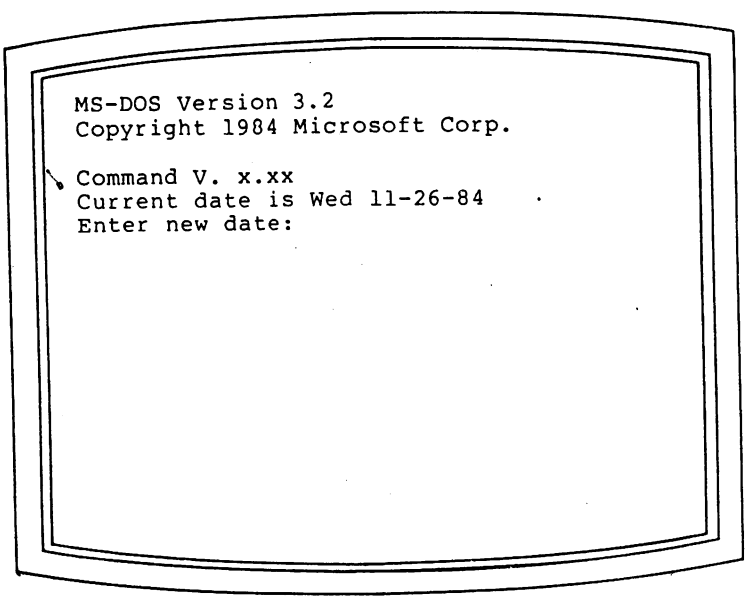
There is a complete index and a list of terms at the end of the book. If you need to know more about MS-DOS, refer to the MS-DOS User's Reference Manual.

How to Start MS-DOS

This section will show you how to start your computer and MS-DOS, and you can see what programs are on the MS-DOS master disk. To start MS-DOS, follow these steps:

1. First, make sure your computer is turned off.
2. If you have a floppy master disk, take the disk out of the protective jacket.
3. Insert the MS-DOS master disk in drive A. (Refer to your computer manual for the correct drive.)
4. Close the disk drive door.
5. Now, turn on your monitor and your computer.

The light on the disk drive will glow, and you will hear some whirring noises as your computer "reads" the disk. Now, your screen should look like this:



MS-DOS asks you to provide the date and the time.

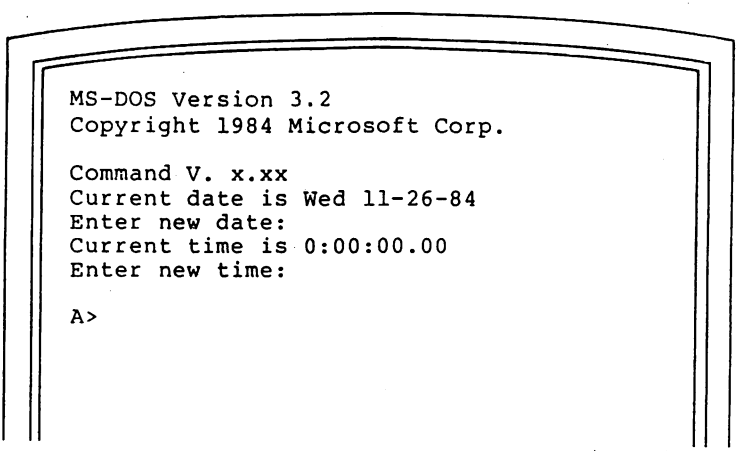
1. Type the date in an mm-dd-yy format. For example, if the date is June 6, 1984, type 06-06-84 and press the Return key. If the date is already correct, or you do not want to answer this prompt, press the Return key to move to the next step.

2. Type the time in an hh:mm format, using 24-hour time. For example, if it is 1:30 p.m., type 13:30, and press the Return key. If the time is already correct, or you do not want to answer this prompt, press the Return key.

If You Make a Mistake...

If you make a mistake when you are typing the date or the time, simply backspace over the mistake and retype. As you use the Backspace key, you will notice that the characters disappear. If you have already pressed the Return key, press the reset key or keys to restart MS-DOS.

Your screen should look like this:



The A> is the MS-DOS prompt. When you see the A>, you can think of MS-DOS saying "Tell me what to do."

What's On the Disk?

Now, let's learn what programs are on your MS-DOS master disk. To see the contents of the MS-DOS disk, follow these steps:

1. Type

   dir

   in response to the A> prompt. This is short for the "Directory" command.

2. Press the Return key.

Your screen will change and will look something like this:

```
Volume in drive A is DOS 3-2
Directory of A:\

COMMAND  COM     16276   11-10-84    9:35a
DEBUG    EXE     11534   11-10-84    9:35a
DISKCOPY COM      4513   11-10-84    9:35a
CHKDSK   EXE      6272   11-10-84    9:35a
SYS      EXE      1400   11-10-84    9:35a
EDLIN    EXE      4419   11-10-84    9:35a
RECOVER  EXE      2281   11-10-84    9:35a
PRINT    EXE      3899   11-10-84    9:35a
LINK     EXE     41856   11-10-84    9:35a
FORMAT   EXE      5605   11-10-84    9:35a
SORT     EXE      1280   11-10-84    9:35a
MORE     COM       291   11-10-84    9:35a
FIND     EXE      5888   11-10-84    9:35a
CONFIG   EXE        33   11-10-84    9:35a
EXE2BIN  EXE      5888   11-10-84    9:35a
FC       EXE     10624   11-10-84    9:35a
ASSIGN   COM      1024   11-10-84    9:35a
SHARE    EXE      7833   11-10-84    9:35a
ATTRIB   EXE     15107   11-10-84    9:35a
JOIN     EXE      6295   11-10-84    9:35a
SUBST    EXE      2056   11-10-84    9:35a

       21 File(s)  23040 bytes free
```

The names you see on the screen are called files. These files are the programs that make up MS-DOS. Other information on the screen is:

- The size of each file, measured in characters.
- The date the file was created or modified.
- The time the file was created or modified.

In this manual, you will learn how MS-DOS allows you to manipulate files.

How to Quit

There is no Quit command in MS-DOS, but ending your MS-DOS session is easy. Follow these steps:

1. Make sure that your last command has finished processing. You should see the MS-DOS prompt (for example, A>) on the screen.
2. Take out any floppy disks that are in the drives. Make sure to put these disks back in their protective jackets and store them in a safe place.
3. Turn off your computer.
4. Turn off your monitor.

That's all there is to it!

What's Next?

In the next chapter, you will learn about disks--how to take care of them, format them, and make a backup copy of your MS-DOS master disk.

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Chapter 1

LEARNING ABOUT DISKS

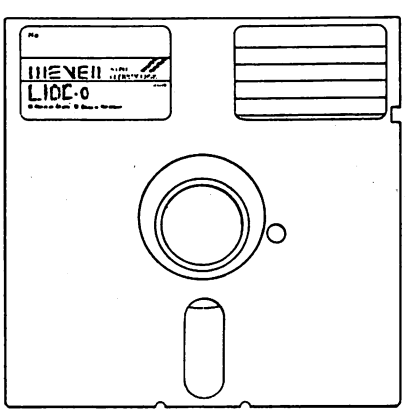
In this chapter, you will learn about:

- Floppy disks
- Hard disks
- How to take care of your floppy disks
- How to format disks
- How to make a backup copy of your MS-DOS master disk

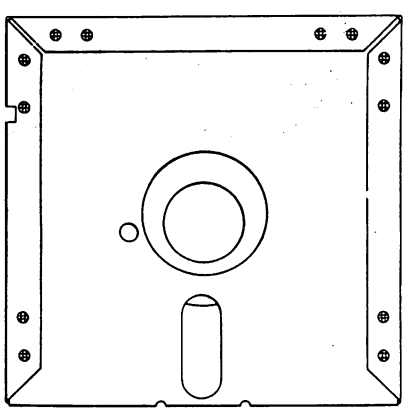
Let's begin by learning about floppy disks.

Floppy Disks

The front of a floppy disk is smooth, while the back has visible seams. Always place labels on the front of the floppy disk, at the top. Never let the label touch the magnetic surface of the disk itself inside the plastic protective envelope. Always use a soft felt-tip pen when writing on labels--a pencil or ballpoint pen can damage the disk.

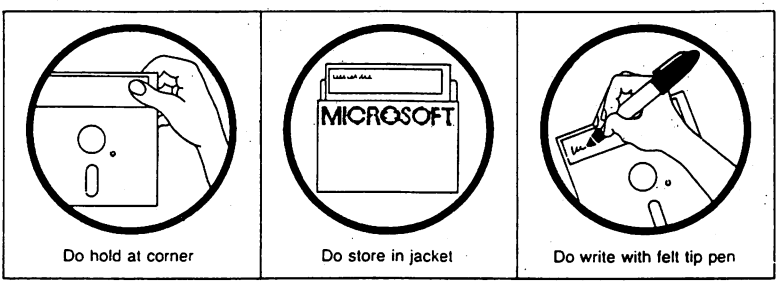


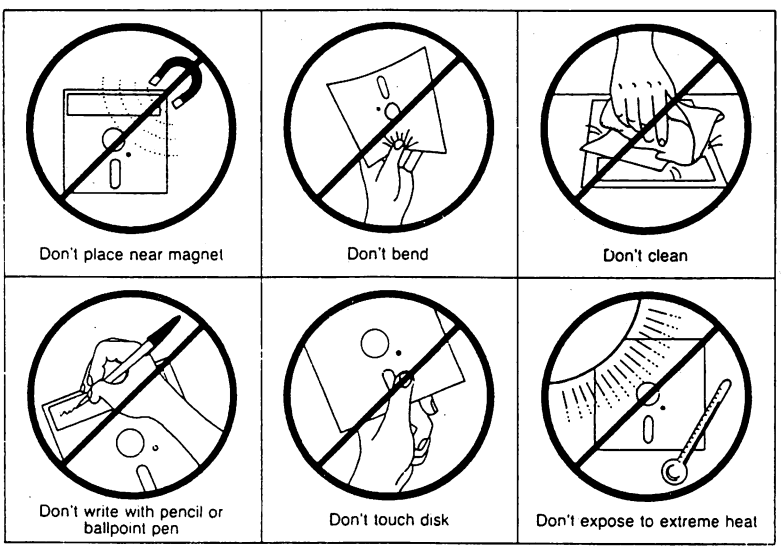
Front



Back

Store floppy disks in a safe place, away from dust, magnetism, and extremes in temperature. Be sure to put a label on each copy of a disk you make.





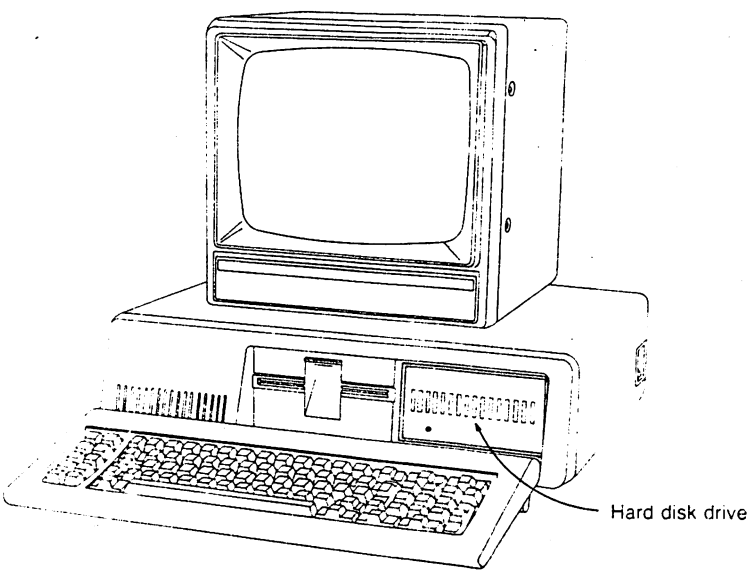
Write-Protect Tabs

Some floppy disks are protected; that is, you can examine information on the disk but you cannot change anything on the disk. These disks are called "write-protected." Usually, write-protected disks have a small tab covering a notch on the right side of the disk. You can copy information onto a write-protected disk or make backup copies of the disk by removing the write-protect tab first. However, be sure to consider the reason the disk was protected in the first place before you change its contents. It is always a good idea to replace the write-protect tab after you have copied or changed a write-protected disk.

If a disk does not have a write-protect notch, it is already write-protected. This protects the disk from any changes by your computer. Your MS-DOS disk may not have a write-protect notch. If so, you must always use a backup copy when you want to change the contents of the MS-DOS disk.

Hard Disks

A hard disk is like a floppy disk that is built into the computer. Most computers with hard disks have a floppy disk drive (a drive where you must insert floppy disks) and a hard disk drive. A computer with a hard disk drive might look like this:



hard disk stores much more information than a floppy disk. Also, it takes less time for the computer to access a hard disk than a floppy disk. If MS-DOS is on a hard disk in your computer, it is a good idea to make a backup copy of the disk onto a floppy disk, in case anything happens to the information on the hard disk.

Formatting Disks

You must "format" all new disks with a special program before MS-DOS can store information on them. The format program changes a disk to a format that MS-DOS can use; it also analyzes the disk for defective spots.

If a disk is not already blank, formatting it destroys any data that is on the disk.

> The following sections tell you how to format a disk and how to make a backup copy of your MS-DOS disk. You should make a backup copy of the MS-DOS master disk before you begin using MS-DOS on a routine basis.
>
> These examples use two disk drives. If you have only one floppy disk drive and no hard drive, turn to "If You Have Only One Disk Drive," at the end of this chapter.

How to Format Your Disks

The MS-DOS disk comes with a program named FORMAT.COM. This is the format program that you run to format a blank disk.

> **Note**
>
> The next section describes how to format a blank floppy disk so you can use it to make a backup copy of your MS-DOS master disk. If you have a hard disk, skip this section and read the next section, "Formatting Your Hard Disk." Turn to Chapter 4 if you need more information on the Format program.

Formatting Floppies

Formatting a disk is simple. The following steps show you how to format a blank disk when you have <u>two</u> floppy disk drives.

1. Make sure that your MS-DOS master disk is in disk drive A.

2. Type:

```
     format b: /s
        |     |  |_____"and include MS-DOS
This says     |        system files."
"format a     |_"on
disk"           drive B"
```

3. Press Return. Your screen will look like this:

```
A>format b: /s
Insert new diskette for drive B:
and strike ENTER when ready
```

4. Insert a blank, unformatted disk in drive B.

5. Press Return to begin formatting.

When the format program has ended, MS-DOS will ask you:

```
Format another?  (Y/N)
```

Press "Y" (for Yes) if you want to format another blank disk, and place another blank, unformatted disk in drive B. If you do not want to format another disk, press "N" (for No) to end the format program.

Formatting Your Hard Disk

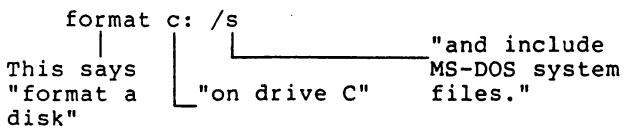
If your computer comes with a hard disk, you will need to format the hard disk before you can copy the MS-DOS files onto it. When you have copied the MS-DOS files, the original floppy disk will be your backup copy.

> **Important**
>
> When you format any disk, you destroy any information that existed previously on the disk. If there are files on your hard disk, copy these files onto floppy disks before you format the hard disk. (To learn how to copy files, turn to Chapter 3.) Once you have formatted your hard disk, you should never have to format it again.

The following example assumes that your hard disk is named drive C. Follow these steps to format a hard disk:

1. Make sure that your MS-DOS master disk is in disk drive A.

2. Type:



3. Press Return. MS-DOS will format the disk in drive C.

When the format program has ended, MS-DOS will ask you:

Format another? (Y/N)

Press "N" (for No), and then press the Return key.

Making a Backup Copy of Your MS-DOS Disk

This section describes how to make a backup copy of your MS-DOS disk if you have two floppy disk drives. If you have a hard disk, read the section "If You Have a Hard Disk"; to learn how to make copies of your other disks, turn to Chapter 4.

MS-DOS comes with a program that copies the contents of disks. This program is named DISKCOPY.COM. Before you can copy a disk with the Diskcopy program, you must format a blank disk using the process described earlier in the "Formatting Disks" section of this chapter.

Making a backup copy of your MS-DOS master disk is easy. Here's all you do:

1. Make sure that the MS-DOS master disk is in drive A.

2. Make sure that the blank, formatted disk is in drive B.

3. Type:

   ```
   diskcopy a: b:
   ```

   This command requests that all information on the disk in drive A be copied onto the disk in drive B.

4. Press the Return key.

A Diskcopy screen will appear. It looks like this:

```
A>diskcopy a: b:

Insert source diskette in drive A:

Insert formatted target diskette in drive B:

Strike any key when ready
```

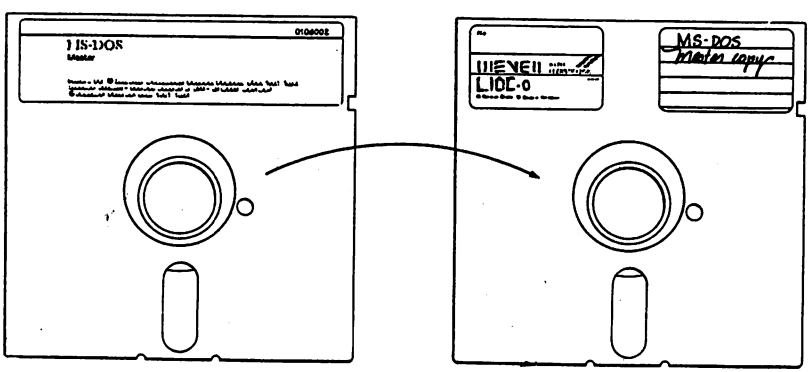
5. Press the Spacebar to start the Diskcopy program.

When the Diskcopy program is complete, MS-DOS will ask:

Copy another? (Y/N)

Press N (for No) to end the copy process.

You now have two MS-DOS disks: the MS-DOS master disk and the copy you just made.



Make sure to label the new disk. Now, put your MS-DOS master disk in a safe place, away from dust and magnetism. You can use the master disk if anything happens to the copy disk.

Remember

Always use your copy of the MS-DOS master disk. Keep the master disk in a safe place.

If You Have a Hard Disk

You must use the Copy program to copy files onto a hard disk. When you start MS-DOS, the Copy program is automatically loaded into your computer's memory.

To copy your MS-DOS master disk onto a hard disk named drive C, follow these steps:

1. Make sure that the MS-DOS master disk is in drive A.

2. Type:

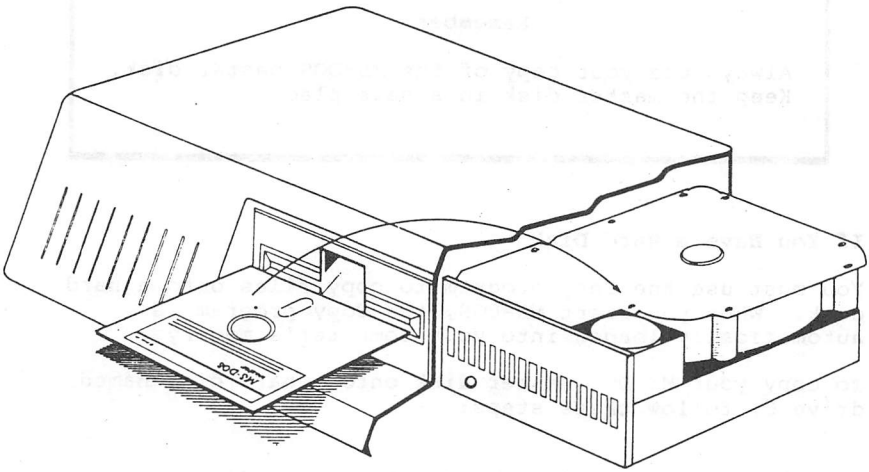
   ```
   copy a:*.* c:
   ```

   This command requests that all files on drive A be copied to drive C.

3. Press the Return key.

The Copy program will list each file on the screen as it is copied onto the new disk. When the process is complete, MS-DOS will tell you how many files have been copied.

You now have two MS-DOS disks: the MS-DOS master disk and the copy you just made on your hard disk.



Master disk copied to hard disk

Now, put the MS-DOS master disk in a safe place, away from dust and magnetism. You can use the master disk if anything happens to your hard disk.

If You Have Only One Disk Drive

> **Note**
>
> Information in this section is installation-dependent and may not be implemented on every manufacturer's machine.

On a single-drive system, you enter the commands as you would on a multi-drive system.

You should think of a single-drive system as having two drives (drive A and drive B). But instead of A and B representing two physical drives as on the multi-drive system, the A and B represent disks.

If you specify drive B when the "drive A disk" was last used, you are prompted to insert the disk for drive B. For example:

```
A> format b:
Insert diskette for drive B:
and strike ENTER when ready
```

If you specify drive A when the "drive B disk" was last used, you are prompted again to change disks. This time, MS-DOS prompts you to insert the "drive A disk."

The letter displayed in the system prompt represents the drive where MS-DOS looks to find a file whose name is entered without a drive letter. The letter in the system prompt does not represent the last disk used.

For example, assume that A is the drive you are using. If the last command you typed was "dir b:", MS-DOS believes the "drive B disk" is still in the drive. However, the system prompt is A>, because A is the drive MS-DOS is using. If you type "dir", MS-DOS prompts you for the "drive A disk" because drive A is the current disk drive, and you did not specify another drive in the Dir command.

What's Next?

In the next chapter, you will learn more about MS-DOS. Some of the topics covered are files and their names, programs, commands, disk drives, and the keyboard.

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Chapter 2

LEARNING ABOUT MS-DOS

Introduction

This chapter defines some important MS-DOS terms. These terms are:

- Program
- Files
- Filename
- Directory
- Disk drive
- Default disk drive
- Commands

In addition, you will learn more about the default disk drive and about the MS-DOS keyboard. If you are already familiar with MS-DOS and MS-DOS terminology, you can skip this chapter and turn to Chapter 3, "MS-DOS Commands."

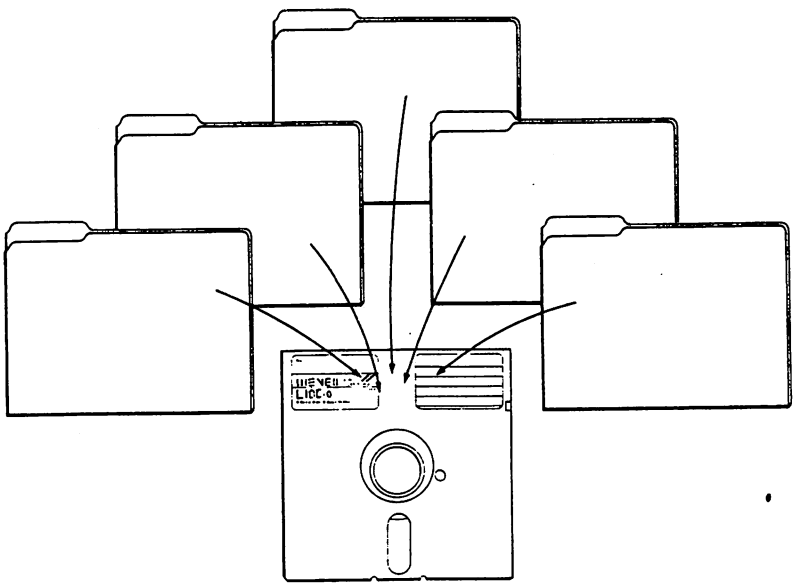
Some Terms You Should Know

Program

Programs are often called "application programs" "applications," or "software." Programs consist of instructions, written in computer languages, that tell your computer to do something. For example, a program might tell your computer to "display all programs that have been run in the past month." Programs have special names and are stored as files on disks.

File

A file is a collection of related information. All programs, text, and data on your disks reside on files. You can think of a disk as a filing cabinet for these files. You create a file or update an old one each time you run an application.

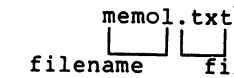


Filename

Each file has a name, just as each folder in a filing cabinet has a label. A filename has two parts: a filename and a filename extension. A filename can be from 1 to 8 characters long, and can be upper or lower case. (If you name your files with small letters, MS-DOS will translate the filenames to all capital letters). You can use both numbers and letters in filenames. You can also use other characters in filenames. These characters are:

$ # & @ ! % ( ) - _ { } ' ~ ^

The filename extension begins with a period followed by three or fewer characters, and is optional. Filename extensions describe the contents of a file to you and to MS-DOS, so it is a good idea to use them. For example, you may want to name all report files with a filename extension of ".rpt". Most applications will set the filename extension for you. This way, you can identify which program created a specific file. An example of a filename with an extension is:



Illegal Filenames

There are some names that MS-DOS considers special, and these cannot be used as filenames. These names are:

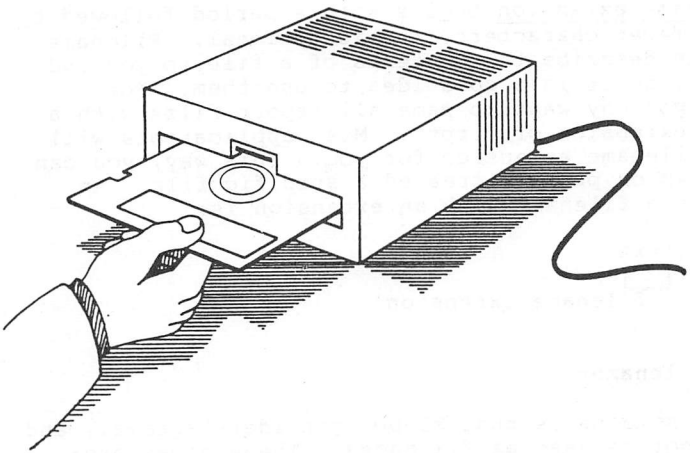
aux
con
lst
prn
nul

You can use any one of these names as a filename extension, however.

Directory

A directory is a table of contents for a disk. The directory contains the names of your files and information on the size of the files and the dates they were created or last modified.

When you look at the filenames in the directory on your MS-DOS master disk, you will see many files with the extension of ".COM." The extension ".COM" is short for "command." A ".COM" extension tells MS-DOS that the file is a program that can be run. Files with other kinds of extensions, such as ".DOC" and ".TXT," contain text. Another common program file extension is ".BAS" for BASIC programs.



Disk drive

Disk drives are commonly referred to as the "A" drive and the "B" drive (hard disks are usually the "C" drive"), representing drives 1 and 2, respectively. If you have only one disk drive on your computer, this is drive "A." Check your computer manual to see which drive is A and which is B. For example, B> represents the B disk drive.

Default disk drive

The default disk drive (also called the "default drive") is the drive that MS-DOS searches automatically for any filenames you may type. MS-DOS will look for files in the default drive unless you specify a different drive. The default drive letter is always displayed with the MS-DOS prompt.

If your computer has only one drive, that drive is the default disk drive. If your computer has more than one disk drive, you can change the default drive. You will learn how to change the default disk drive later in this chapter.

Commands

Commands are actually small programs that you use to "talk" to MS-DOS. For example, when you type

```
diskcopy a: b:
```

to copy your MS-DOS master disk, you are actually running a program named DISKCOPY.COM on the MS-DOS disk.

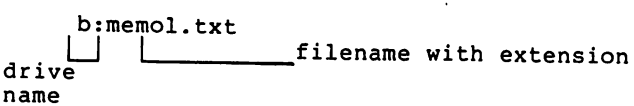
Commands are used to do many tasks, such as

- copying programs
- printing files
- deleting files
- running programs

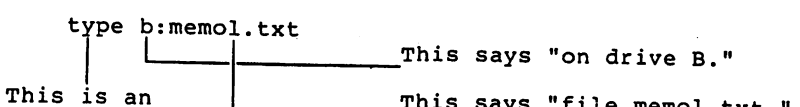
Chapter 3 contains more information on MS-DOS commands. In addition, the MS-DOS User's Reference Manual contains a complete description of every MS-DOS command.

More About Files

Filenames can also have drive names. A drive name tells MS-DOS which drive the file is on. A drive name consists of a drive letter and a colon:



A drive name is important if you want to display or run a file in a drive that is not the default disk drive. For example, if A is the default drive and you want to see the contents of the "memol.txt" file in the directory on the disk in drive B, you would type the MS-DOS "Type" command and then the filename:



MS-DOS will look on drive B to find the file named "memo1.txt" and then will display the contents of that file on the screen. (Some files may not make sense when you display them on the screen; they are written in "code," and require an application program to view them.)

MS-DOS will always look on drive B for filenames and programs if you assign drive B as the default disk drive. To do this, you must change the default disk drive to drive B.

Why Change the Default Disk Drive?

Let's assume that you have two drives on your system. Your MS-DOS disk is in drive A. You have inserted a program disk in drive B.

When your prompt is "A>", MS-DOS will only search the disk in drive A for files and programs. To run a program named "SORT" on drive B from drive A, you can type:

```
b:sort
```

However, if you will be working primarily with files on drive B, it is easier to change the default disk drive to B, so that you won't have to type "b:" with every command.

How to Change the Default Disk Drive

To change the default disk drive from drive A to drive B, type the new drive letter followed by a colon. For example:

```
A>          (MS-DOS prompt)
A>b:        (You have typed b: in response to
            the prompt)
B>          (MS-DOS responds with B>, and drive
            B is now the default drive)
```

The system prompt B> appears and MS-DOS will search only the disk in drive B until you specify a different default drive.

If you have only one disk drive attached to your computer, refer to the section "If You Have Only One Disk Drive" in Chapter 1 for instructions.

Some Keys You Use With MS-DOS

Besides the keys you'd find on a typewriter, your computer keyboard has some keys that have special meaning to MS-DOS.

Before we start, there are some differences between a typewriter keyboard and a computer keyboard that you should know:

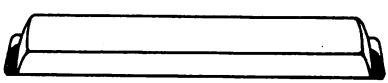
There is a difference...

A computer understands the difference between a one and a small L. Make sure you don't type a small L when you mean a one!

Capital O and zero may LOOK alike, but they mean different things to a computer. Most computers display a zero with a diagonal line (0) through it. Make sure you type the correct letter or number when you give commands to MS-DOS.

Special Keys

Spacebar



The Spacebar moves the cursor (the highlight or blinking spot on the screen) but it also adds spaces to a line. Use the arrow keys to move the cursor on a line without replacing characters with blanks.

Move cursor

Arrow keys move the cursor right, left, up, and down on your screen. They do not affect the characters displayed. Some programs ignore these keys.

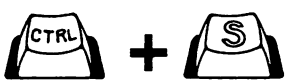
Corrects mistakes

Use the Backspace key to correct typing mistakes before you press the Return key. The Backspace key deletes characters as it moves the cursor to the left.

Control Keys

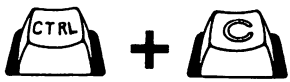
The "Control" key has a very special task. It lets you give complex commands to your computer by only pressing two or three keys. Like the Shift key, the Control key must be held down while you press another key.

Stops scrolling



For example, when you press the Control key AND the "S" key, you can stop the screen display from scrolling off the screen. To continue scrolling, press Control-S again.

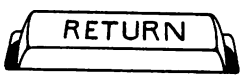
Stops a command



The Control-C combination stops a command from running.

The Return Key

Enters a command



Press the Return key after you type commands. The Return key sends commands to MS-DOS for processing.

To Start MS-DOS Over

If you want to start MS-DOS from the beginning, press the Reset key. Refer to your computer manual for the exact location of this key. (Reset may be a combination of keys.)

What's Next?

In the next chapter, you will learn about MS-DOS commands.

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Chapter 3

USING COMMANDS

This chapter describes some common MS-DOS commands and how to use them. For more information on MS-DOS commands, see the MS-DOS User's Reference Manual.

What is a Command?

Commands are actually small programs that you use to "talk" to MS-DOS. For example, when you type

```
diskcopy a: b:
```

to copy your MS-DOS master disk, you are actually running a program named DISKCOPY.EXE on the MS-DOS disk.

Commands are used to do many tasks, such as:

- copying programs
- printing files
- deleting files
- running programs

The following commands are discussed in this chapter:

Command	What It Does
Format	Formats disks
Diskcopy	Copies the contents of disks
Dir	Displays a directory
Copy	Copies files
Del	Deletes files
Rename	Renames files
Type	Displays files
Print	Prints files

Chapter 4 tells you how to create files, run BASIC, and run application programs.

Disk Commands

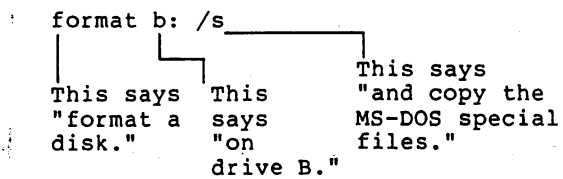
First, let's discuss two commands that operate on a disk: Format and Diskcopy.

Formatting a Disk: The Format Command

You use the Format command to format a disk. You must format a blank disk before it can be used by MS-DOS. Formatting a disk changes the disk to a format that MS-DOS understands, and also checks the disk for defective spots.

There is a special way to format a blank disk that allows three special MS-DOS files to be copied onto the disk when it is formatted. (Two of the special files are "hidden"--that is, they do not appear when you display a directory. The third file is named COMMAND.COM.) It is important to copy these files with the Format command when you make a copy of your MS-DOS master disk. You do not have to copy the special files if the blank disk is going to hold only data files.

To format a blank disk in drive B and copy the special files, use the command:



Example

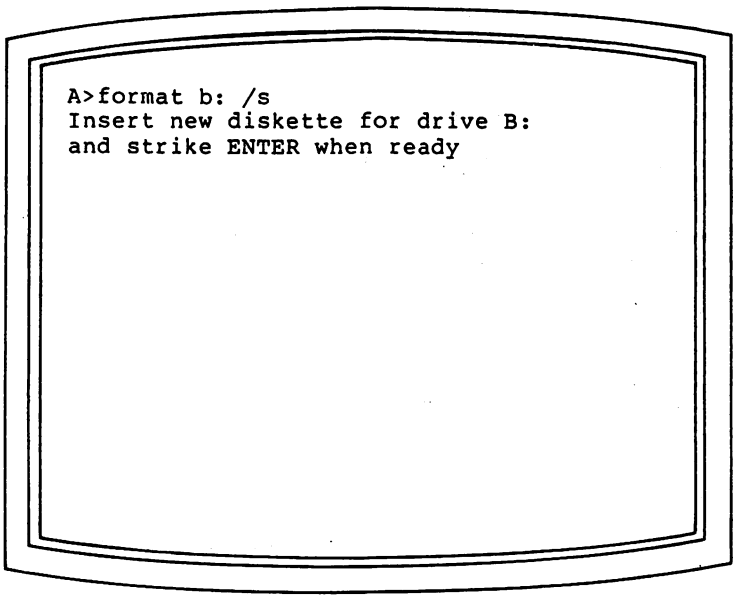
To format a disk in drive B, follow these steps:

1. Make sure that the MS-DOS disk is in drive A.
2. Type:

   ```
   format b: /s
   ```

3. Press the Return key.

4. Your screen will look like this:



5. Insert a blank disk in drive B.

6. Press the Return key to start the format process.

   When the format process is complete, MS-DOS will display the prompt:

   Format another? (Y/N)

7. Press "N" (for No), and press the Return key to exit the Format program.

Warning

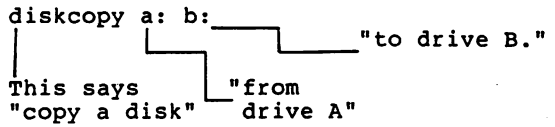
The Format program destroys any information that is on a disk. Make sure that you do not need any existing files on a disk before you format it with MS-DOS.

Copying a Disk: The Diskcopy Command

The Diskcopy command copies the contents of disks. To copy a disk's contents with the Diskcopy command, you must have the following:

- the disk you want to copy
- a blank formatted disk

To copy the contents of a disk in drive A to a disk in drive B, use the command:



Example

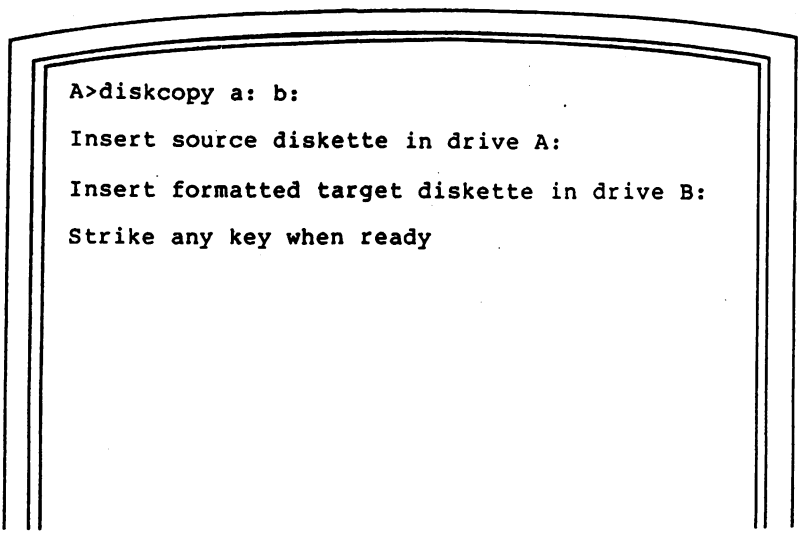
To copy the contents of a disk from drive A to drive B, follow these steps:

1. Put the disk you want to copy into drive A.
2. Put a blank, formatted disk into drive B.
3. Type:

   diskcopy a: b:

4. Press the Return key.

5. Your screen should look like this:



6. Press the Spacebar to start the Diskcopy process.

   When the disk has been copied, MS-DOS will ask

   Copy another? (Y/N)

7. Press "N" (for No) to exit the Diskcopy program.

File Commands

There are many MS-DOS commands that operate on files. Some of the more common commands are Dir, Copy, Del, Rename, and Print.

Listing the Directory: The Dir Command

You can list the directory (contents) of a disk by using the MS-DOS Dir command. To display the directory of the disk in drive B, for example, use the command:

```
dir b:
|   |
|   └──────"on drive B."
This says
"show me the
directory of
a disk"
```

If you type "dir" without a drive letter, MS-DOS lists the directory of the disk in the default drive.

Example

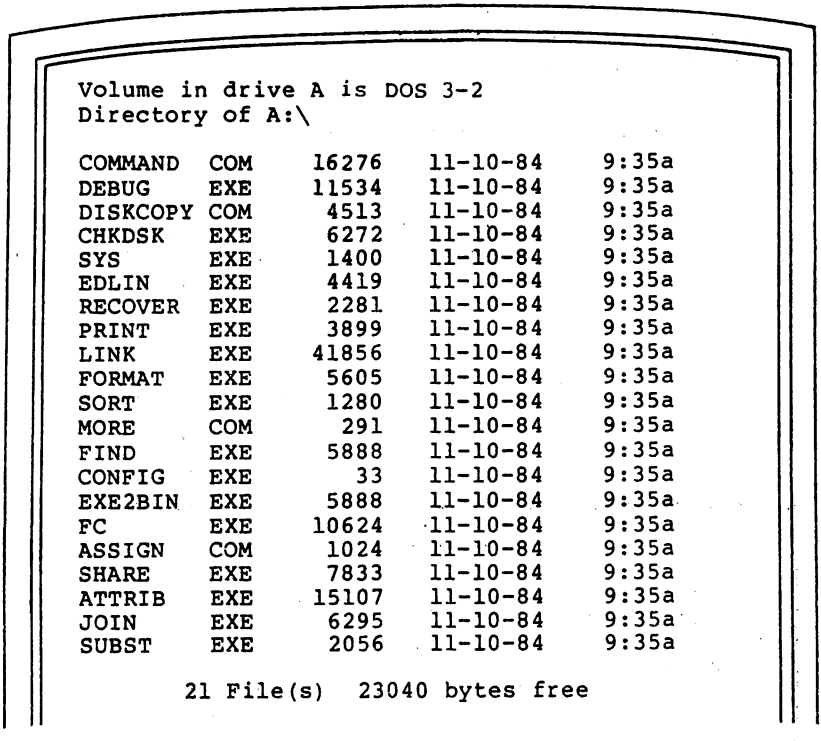
To display the directory of the MS-DOS disk in drive A, follow these steps:

1. Make sure the MS-DOS disk is in drive A.
2. In response to the MS-DOS prompt (A>), type:

   dir

3. Press the Return key. If necessary, press Control-S to stop scrolling. To view the rest of the display, press Control-S again.

Your screen should look similar to this:



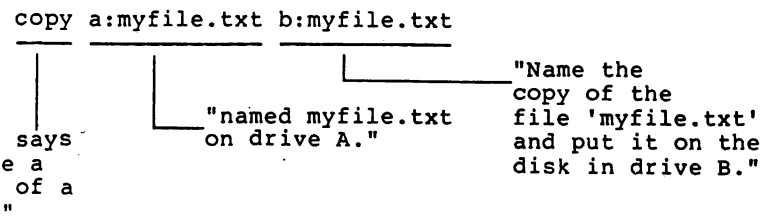
```
Volume in drive A is DOS 3-2
Directory of A:\

COMMAND  COM     16276    11-10-84    9:35a
DEBUG    EXE     11534    11-10-84    9:35a
DISKCOPY COM      4513    11-10-84    9:35a
CHKDSK   EXE      6272    11-10-84    9:35a
SYS      EXE      1400    11-10-84    9:35a
EDLIN    EXE      4419    11-10-84    9:35a
RECOVER  EXE      2281    11-10-84    9:35a
PRINT    EXE      3899    11-10-84    9:35a
LINK     EXE     41856    11-10-84    9:35a
FORMAT   EXE      5605    11-10-84    9:35a
SORT     EXE      1280    11-10-84    9:35a
MORE     COM       291    11-10-84    9:35a
FIND     EXE      5888    11-10-84    9:35a
CONFIG   EXE        33    11-10-84    9:35a
EXE2BIN  EXE      5888    11-10-84    9:35a
FC       EXE     10624    11-10-84    9:35a
ASSIGN   COM      1024    11-10-84    9:35a
SHARE    EXE      7833    11-10-84    9:35a
ATTRIB   EXE     15107    11-10-84    9:35a
JOIN     EXE      6295    11-10-84    9:35a
SUBST    EXE      2056    11-10-84    9:35a

       21 File(s)  23040 bytes free
```

Copying Files: The Copy Command

You can use the Copy command to copy one or more files, either onto the same disk or onto another disk. To copy a file from the disk in drive A to the disk in drive B, use the command:


copy a:myfile.txt b:myfile.txt
This says "make a copy of a file"
"named myfile.txt on drive A."
"Name the copy of the file 'myfile.txt' and put it on the disk in drive B."

You cannot make a copy of a file on the same disk and give it the same name as the original.

Helpful Hint

In the above example, if A is the default drive, (that is, the prompt is A>), you do not need to type the "a:" in the first filename. Also, the copy will automatically have the name of the original file if you do not specify a new name. For example, the commands

```
copy a:myfile.txt b:myfile.txt

copy myfile.txt b:myfile.txt
```

and

```
copy myfile.txt b:
```

will all accomplish the same thing.

The following example

- Makes a copy of the file named "memo.txt" on the disk in drive A.
- Names the copy "stuff.txt."
- Puts the "stuff.txt" file on the same disk (in drive A).

Example

1. Make sure that the disk with the file named "memo.txt" is in drive A and that A is the default drive.
2. Type:

   ```
   copy memo.txt stuff.txt
   ```

3. Press the Return key.

Deleting Files: The Del Command

When you want to erase a file from a disk, use the Del command. To delete the file named "stuff.txt" on the disk in drive B, use the command:

```
del b:stuff.txt
```

This says "delete a file"

"named 'stuff.txt' on the disk in drive B."

Example

To delete the file named "memo.bas" on the disk in the default drive, follow these steps:

1. Make sure that the disk with the file named "memo.bas" is in the default drive.

2. Type:

   ```
   del memo.bas
   ```

3. Press the Return key. The file "memo.bas" is deleted from the disk.

Helpful Hints

1. The name "*.*" means "all files on a disk" to MS-DOS. Be careful when you use this unique abbreviation. If you type "del *.*" MS-DOS will delete ALL files on the disk!

2. The Del command does not work if you type "Delete." You can, however, type "Erase" instead of "Del."

Renaming Files: The Rename Command

Sometimes you may want to change the name of a file. For example, suppose you have a file named "memo.doc" on a disk. When you add other memos on your disk, you may want to change the name to be more specific. To change the name to "billmemo.doc", use the command:

```
rename memo.doc billmemo.doc
------ -------- ------------
|
This says  |__"from      |__"to
"change the   'memo.doc'"    'billmemo.doc.'"
name of a
file"
```

You can only rename files on the same disk. That is, you cannot change "a:memo.doc" to "b:memo.doc."

Example

If you want to rename a "story.doc" file on drive A to "fable.doc", follow these steps:

1. Make sure that the disk with the file named "story.doc" is on the disk in drive A.

2. Type:

   rename a:story.doc a:fable.doc

3. Press the Return key.

Helpful Hint

The "Rename" command can be abbreviated "Ren".

Displaying Files: The Type Command

MS-DOS will display files on the screen when you issue a "Type" command. For example, you may have created a file named "boats.cal" on the disk in drive A, and you want to see what it looks like. To display the file on the screen, use the command:

```
type a:boats.cal
---- ------------
|               |
This says:      |---"the file named
"display on           'boats.cal' on the
the screen"           disk in drive A."
```

Example

You wish to display the file named "deadline.10" on the disk in the default drive. Follow these steps:

1. Make sure that the disk with the file named "deadline.10" is inserted in the default drive.

2. At the MS-DOS prompt, type:

   type deadline.10

3. Press the Return key.

The file named "deadline.10" will be displayed on the screen.

Helpful Hints

1. If the file is too long to fit on one screen, remember that you can press Control-S to stop the scrolling. When you press Control-S again, the file will continue to scroll.

2. MS-DOS only displays text files on the screen. If you try to display a program file (a file with an extension of .COM or .EXE), you will see only odd symbols on the screen!

3. Some files may require you to run an application program before you can view them.

Printing Files: The Print Command

> **Note**
>
> This section is meaningful only if you have a printer attached to your computer.

MS-DOS allows you to print files on a printer. For example, assume that you have written a BASIC program named "sorter.bas" and want to print it on your printer. You could use the command:

```
print sorter.bas
```

- `print` — This says "print a file"
- `sorter.bas` — "named 'sorter.bas.'" Since no drive (a: or b:) is specified, MS-DOS assumes that this file is on the disk in the default drive.

Example

You have created a file of names and phone numbers and want to print the file to store near your phone. The file is named "friends.me" and is on the disk in drive B. Drive A is the default drive (A> is the prompt). To print the "friends.me" file, follow these steps:

1. Make sure that the MS-DOS disk is in drive A.
2. Make sure that the disk with the "friends.me" file is on the disk in drive B.
3. Check to see that your printer is on and has paper.
4. In response to the A> prompt, type:

   ```
   print b:friends.me
   ```

5. Press the Return key.

If the MS-DOS disk is not in drive A, MS-DOS will prompt you to insert the master disk in the drive.

Helpful Hint

You can type other commands to MS-DOS when a file is being printed. You can even run other programs or create and modify files. However, printing a file takes a lot of your computer's resources, and your tasks may take longer if you try to do them while you are printing a file. If you have a long file to print, it is a good idea to schedule the printing when you plan to be away from your computer for a while.

What's Next?

We have been talking a lot about files and programs. How do you create a file? How do you run BASIC and other software packages?

Chapter 4 explains how to run application programs, create and modify files, and run BASIC.

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Chapter 4

USING MS-DOS

This chapter describes some common MS-DOS applications. These are:

- Creating a file
- Running a software program
- Running BASIC

First, let's learn how to create a file.

> **Note**
>
> The following sections show you how to perform some simple MS-DOS operations. These sections are not meant to teach you how to use EDLIN or BASIC. For more information on these MS-DOS applications, refer to the appropriate user's manual.

Creating Files

So far in this guide, we've discussed how to delete, rename, copy, and print files. There are several ways to create files. These are:

1. Run the MS-DOS editor program, named EDLIN.
2. Run a word processing program. See your word processing user's manual for information on how to create files.
3. Create a file with BASIC.

The next section briefly discusses EDLIN, a text editor supplied with MS-DOS. To create a file with BASIC, turn to the section "Using BASIC."

Using EDLIN

MS-DOS comes with a program called EDLIN.COM. This program is a line editor. You can create files with EDLIN and you can edit (modify) the files.

Let's assume you want to create a file named "invite.txt" on the default drive. The file will contain the following lines:

```
Tweedledum and Tweedledee
graciously asked Alice
to join them for lunch
on Tuesday.
```

The following example shows you how to start EDLIN, create the file, and exit EDLIN.

Example

To create this file using EDLIN, follow these steps:

1. Make sure the MS-DOS disk is in drive A.

2. Type

   ```
   edlin invite.txt
   ```

3. When you see the asterisk (*), type

   ```
   i
   ```

   (for "insert") and press the Return key. You will see line number 1.

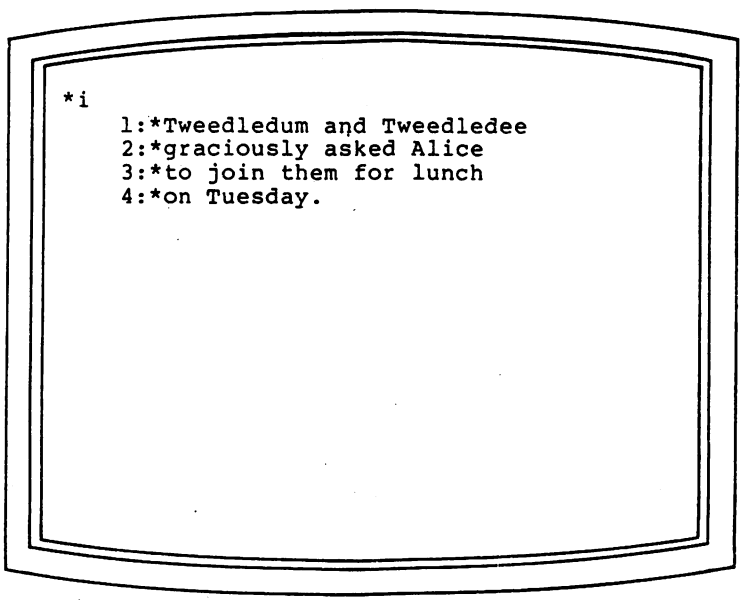
4. Type the following lines. Remember to press the Return key after <u>each</u> line, including the last line.

   ```
   Tweedledum and Tweedledee
   graciously asked Alice
   to join them for lunch
   on Tuesday.
   ```

If you make a mistake...

Use the Backspace key to erase a mistake on a line before you press the Return key.

5. Your screen should look like this:



6. At line 5, press the Control-C key to get back to the EDLIN prompt (the asterisk).

7. Type

   e

   (for "end"). You will be returned to the MS-DOS A> prompt.

You now have a file named "invite.txt" on the disk in the default drive. When you type the MS-DOS Dir command, you should see an entry for "invite.txt." You can view the "invite.txt" file by typing

```
type invite.txt
```

in response to the A> prompt.

For more information on how to use EDLIN, refer to the MS-DOS User's Reference Manual.

Running Application Programs

There are many types of application programs, including spreadsheets, word processors, and tax preparation packages. These application programs can help you in many ways: they can help you balance your budget, send form letters, and manage information such as address lists. You can run many different kinds of programs when you have MS-DOS.

To run an application program, you generally

1. Place the application disk in an empty drive.
2. Change the default drive to the one that contains the application program disk.
3. Type the name of the program you want to run.

Many programs have shorthand names so you can run them quickly and easily. Check the user's guide that came with the application to learn how to start the program.

Running BASIC

BASIC is a general-purpose programming language that is easy to learn. Your MS-DOS master disk may include the BASIC language. If it does, you can begin to learn it or use it right away.

To start BASIC, follow these steps:

1. Start MS-DOS. For instructions on how to do this, see the Introduction to this guide.
2. In response to the A> prompt, type:

   basic

3. Press the Return key.

You are now in BASIC. You can create and run programs in BASIC, and you can create text files with the BASIC editor.

To quit BASIC and return to MS-DOS:

1. Type

   system

   in response to the BASIC "ok" prompt.
2. Press the Return key.

The MS-DOS prompt (for example, A>) is redisplayed.

Learning More About BASIC

For information on how to use BASIC, refer to the Microsoft GW-BASIC 2.0 Interpreter Manual. To learn how to program in BASIC, we suggest you read one of the following books:

Dwyer, Thomas A. and Critchfield, Margot. BASIC and the Personal Computer. Reading, Mass.: Addison-Wesley Publishing Co., 1978.

Albrecht, Robert L., Finkel, LeRoy, and Brown, Jerry. BASIC. New York: Wiley Interscience, 2nd ed., 1978.

Coan, James. Basic BASIC. Rochelle Park, N.J.: Hayden Book Company, 1978.

What's Next?

In this chapter, you learned about ways to use MS-DOS. Chapter 5 describes some common messages that MS-DOS displays on the screen.

To learn more about how to use MS-DOS, turn to the MS-DOS User's Reference Manual for detailed information on MS-DOS commands and programs.

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Chapter 5

MESSAGES

This chapter is divided into two parts:

1. Device error messages. These are messages that MS-DOS displays while reading or writing to devices on your computer. Device error messages can be displayed at any time, even when applications are running. Devices can be printers, disk drives, and the screen display.

2. Common messages. These are messages that MS-DOS displays during processing, and are sometimes error messages. For example, MS-DOS displays a message when you mistype a command or filename. MS-DOS will look for the command or filename you typed, and when it does not find the file on the disk, a "Bad command or file name" error message appears on the screen.

The messages are displayed in alphabetic order.

Device Error Messages

When MS-DOS detects an error while reading or writing to a device on your system, an error message is displayed. This message has the following format:

```
<type> error reading <device>
Abort, Retry, Ignore?

        or

<type> error writing <device>
Abort, Retry, Ignore?
```

In these messages, <device> is the name of the device that has the error. Examples are "device PRN" (for a printer) or "drive C:" (for a disk drive). <type> will be one of the following:

Bad call format

The length of the request header passed to the device header was incorrect. If MS-DOS displays this message, contact your computer manufacturer.

Bad command

A device driver issued an incorrect command to the device specified in the error message.

Bad unit

Invalid subunit numbers were passed to the device driver. If MS-DOS displays this message, contact your computer manufacturer,

Data

MS-DOS could not read the data from the disk properly. This is often due to a defective disk. Refer to the "Responses to Device Errors" section of this chapter for more information. You should try to correct the error by choosing Retry several times. You can also type "A" (for Abort) to end the program.

General failure

An unusual error has occurred. This error usually requires a knowledgeable programmer to fix it. Choose Retry or Abort.

Invalid disk change

You changed the disk in a drive when it was not allowed. Put the disk back in the drive and choose Retry.

Lock-Violation

A program tried to access part of a file that is being used by another program. Choose Abort, or wait a while and choose Retry.

No paper

Your printer is either out of paper or is not on. Either add paper to your printer or turn it on. Refer to the section "Responses to Device Errors" in this chapter for more information.

Non-DOS disk

MS-DOS does not recognize the disk format because there is missing information or another operating system on the disk. Try to run the Chkdsk program to correct the problem. (Refer to the MS-DOS User's Reference Manual for information on Chkdsk.) If running Chkdsk does not solve the problem, you should reformat the disk with the Format command. This will destroy all files on the disk.

Not ready

The device (usually a drive or printer) specified in the error message is not ready to accept or transmit data. Check to see if the disk drive door is closed and choose Retry if this was the problem. Check to see if the printer is on.

Read fault

MS-DOS was unable to read data from the device (usually a disk drive). Check to see that the disk is properly inserted in the drive and choose Retry. See the section "Responses to Disk Errors" in this chapter for more information.

Sector not found

This error usually means that the disk has a defective spot, and MS-DOS cannot find the requested information on it. You should copy all files from the disk onto a good disk, and then try to reformat the defective disk.

Seek

MS-DOS was unable to locate the information on the disk. Make sure that the disk is properly inserted in the drive, or try a different drive. Refer to the section "Responses to Disk Errors" in this chapter for more information.

Sharing violation

A program tried to access a file but another program is currently using that file. Choose Abort, or wait a while, then choose Retry.

Write fault

MS-DOS was unable to write data to the specified device. Make sure that the disk is properly inserted in the disk drive. Try Retry. If the same error message is displayed after Retry, choose Abort. Refer to the section "Responses to Disk Errors" in this chapter for more information.

Write protect

You tried to write data on a write-protected disk. If the disk has a write-protect tab on it, you must remove the tab before you can write on the disk. (You should take into consideration, however, the reason the disk was write-protected in the first place.) If the disk does not have a write-protect notch, no data can be written on that disk.

Responses to Device Errors

> **Important**
>
> If any of the above messages (except for "Invalid disk change") appears for a disk drive, do not change disks before responding with A, R, or I.

When a device error is displayed, MS-DOS waits for you to enter one of the following responses:

A Abort. Terminate the program requesting the disk read or write.

I Ignore. Ignore the defective sector and pretend the error did not occur. WARNING: This response may cause damage to information on the disk.

R Retry. Repeat the operation. This response should be used when you have corrected the error (for example, with "Not ready" or "Write protect" disk errors).

Usually, you will want to attempt recovery by typing responses in this order:

R ("Retry"--to try again)

A ("Abort"--to terminate the program or command and try a new disk)

One other error message might be related to a faulty disk read or write:

File allocation table bad for drive x

This message means that the disk was not formatted or was incorrectly formatted before use. It could also mean that an operating system other than MS-DOS is on the disk. If this error message continues to be displayed, you should run the Chkdsk program. Refer to the MS-DOS User's Reference Manual for information on Chkdsk.

Common Error Messages

The following list describes some of the common error messages that MS-DOS displays. The messages are listed in alphabetical order. For a complete list of MS-DOS error messages, see the MS-DOS User's Reference Manual.

Abort, Retry, Ignore?

If a disk or device error occurs at any time during a command or program, MS-DOS displays this message and asks you to abort the command or program, retry it, or ignore the error.

Are you sure (Y,N)?

MS-DOS displays this message if you try to delete *.* (all files in the directory). Specify "Y" (for Yes) or "N" (for No).

Bad call format reading drive (x:)

This is a device error. See the section "Device Error Messages" in this chapter for information.

Bad call format writing drive (x:)

This is a device error. See the section "Device Error Messages" in this chapter for information.

Bad command error reading drive (x:)

This is a device error. See the section "Device Error Messages" in this chapter for information.

Bad command error writing drive (x:)

This is a device error. See the section "Device Error Messages" in this chapter for information.

Bad command or file name

The command cannot find the file you asked it to run. You either mistyped the filename or the file does not exist on the disk.

Bad unit error reading drive (x:)

This is a device error. See the section "Device Error Messages" in this chapter for information.

Bad unit error writing drive (x:)

This is a device error. See the section "Device Error Messages" in this chapter for information.

Copy another (Y/N)?

Respond "Y" if you wish to copy another disk. Respond "N" if you do not wish to copy another disk.

Copy complete

The Diskcopy program has completed processing.

Copy not completed

The Diskcopy program could not copy the entire disk.

Copying...

This message indicates that the Diskcopy program is copying a disk.

Current date is (mm-dd-yy)

This message appears when you first start MS-DOS.

Current time is (hh:mm:ss.hh)

This message appears when you first start MS-DOS.

Data error reading drive (x:)

This is a device error. See the section "Device Error Messages" in this chapter for information.

Data error writing drive (x:)

This is a device error. See the section "Device Error Messages" in this chapter for information.

Disks must be the same size

You cannot copy the contents from one disk to a disk with a different format using the DISKCOPY program. Use the Copy command to copy files onto the disk.

Duplicate file name or file not found

You have tried to rename a file to a filename that already exists or the name you specified could not be found.

Enter new date:

You must respond to this prompt when you start MS-DOS. Enter the date in an mm/dd/yy format or press the Return key to accept the proposed date.

Enter new time:

You must respond to this prompt when you start MS-DOS. Enter the time in an hh:mm format or press the Return key to accept the proposed time.

Errors on list device indicate that it may be off-line. Please check it

Your printer is not turned on.

File cannot be copied onto itself

The source filename you specified is the same as the destination filename. Example:

```
copy file1 file1
```

File creation error

You tried to add a new filename or replace a file that already exists in the directory. If the file already exists, it is a read-only file and cannot be replaced. Run the Chkdsk program on the disk to determine the cause of the error. (Refer to the MS-DOS User's Reference Manual for information on Chkdsk.)

(filename) file not found

You switched disks while a file was in the print queue, but before it started to print. Reissue the Print command for that filename.

(filename) is currently being printed

The filename specified is being printed.

(filename) is in queue

The filename specified is waiting to be printed.

File not found

MS-DOS cannot find the file that you specified. Check to see that the name is accurate and that the file exists in the directory on the disk.

Format another (Y/N)?

Type "Y" (for Yes) to format another disk. Type "N" (for No) if you do not want to format another disk. If you accidentally type Y, you can abort the format process by typing Control-C in response to the "Strike ENTER when ready" message.

Format failure

MS-DOS could not format the disk. This message is always displayed with an explanation as to why MS-DOS could not format the disk.

General failure error reading drive (x:)

This is a device error. See the section "Device Error Messages" in this chapter for information.

General failure error writing drive (x:)

This is a device error. See the section "Device Error Messages" in this chapter for information.

Insert DOS diskette in drive (x:) and strike ENTER when ready

You have specified "format /s" but the disk in the default drive does not contain MS-DOS system files. Insert your MS-DOS master disk copy in the drive specified and press the Return key.

Insert formatted target diskette into drive (x:)

The Diskcopy program is ready for a disk in the destination drive. The Diskcopy program requires that the destination disk be already formatted.

Insert new diskette for drive (x:) and strike ENTER when ready

This message appears when MS-DOS is running the format program. You should insert a disk in the appropriate drive and press the Return key to begin processing.

Insert source diskette into drive (x:)

Insert the disk to be copied into the specified drive.

Insert system disk

You are formatting a disk with the /s switch. You must place a disk with the system files in the disk drive before the format program can continue.

Insert target diskette into drive (x:)

You are running the Diskcopy program and your source and destination drives are the same. Reinsert the destination disk into the specified drive.

Invalid COMMAND.COM. Insert disk with COMMAND.COM in drive (x:) and strike any key when ready

The application you have just run used up almost all of memory. It is necessary for MS-DOS to reload the COMMAND.COM file from disk. However, MS-DOS cannot find COMMAND.COM on the disk or the copy found is invalid. Insert a disk into the specified drive which contains a copy of COMMAND.COM similar to the version on the disk with which you started MS-DOS.

Invalid date

You specified an invalid date in response to the date prompt when starting MS-DOS.

Invalid time

You specified an invalid time in response to the time prompt when starting MS-DOS.

List output is not assigned to a device

When you first type the Print command, MS-DOS asks you what device you want to specify as a printer. This message appears only if the Print program is set up for a nonexistent device.

Name of list device [PRN]:

This prompt appears the first time you type the Print command. Any valid device may be specified and that device then becomes the printer.

No paper error writing device (dev)

This is a device error. See the section "Device Error Messages" in this chapter for information.

Non-DOS disk error reading drive (x:)

This is a device error. See the section "Device Error Messages" in this chapter for information.

Not ready error reading drive (x:)

This is a device error. See the section "Device Error Messages" in this chapter for information.

Not ready error writing drive (x:)

This is a device error. See the section "Device Error Messages" in this chapter for information.

Press ENTER when ready

This prompt is issued before you format a disk. Press the Return key to begin the format process. If you wish to discontinue this operation, press Control-C.

Press any key when ready

This prompt occurs when you are copying disks. When you have inserted the disks into the appropriate drives, press the Spacebar key to begin the Diskcopy program. If you wish to discontinue this operation, press Control-C.

PRINT queue is empty

There are no files waiting to be printed.

PRINT queue is full

The default limit for the print queue is 10 files. You can set a larger number by using the /q switch when you type the Print command. The maximum number you can set is 32 (minimum is 4) when using the /q switch.

Program too big to fit in memory

You must acquire more memory to run your application. It is possible that some applications you have run are still using some memory. You may try to restart MS-DOS; however, if you still receive this message, you must acquire more memory.

Read fault error reading drive (x:)

This is a device error. See the "Device Error Messages" section in this chapter for information.

Resident part of PRINT installed

MS-DOS displays this message when you first issue the Print command. It means that available memory has been reduced by several thousand bytes to process the Print command with other processes.

Sector not found error reading drive (x:)

This is a device error. See the "Device Error Messages" section in this chapter for information.

Sector not found error writing drive (x:)

This is a device error. See the "Device Error Messages" section in this chapter for information.

Seek error reading drive (x:)

This is a device error. See the "Device Error Messages" section in this chapter for information.

Seek error writing drive (x:)

This is a device error. See the "Device Error Messages" section in this chapter for information.

Source and target diskettes are not the same format. Cannot do the copy

You must have the same size and kind of disks to run the Diskcopy program. Example: you cannot copy from a single-sided disk to a double-sided disk. Reformat the target disk to be of the same type as the source disk, or use the Copy command to copy the files. Refer to the MS-DOS User's Reference Manual for more information.

Strike any key when ready...

This prompt occurs during command processing and is always accompanied by another message. Usually, you are asked to insert disks into appropriate drives before this prompt. Press the Return key to begin command processing.

System transferred

The system files have been transferred during Format program processing.

Track 0 bad - disk unusable

The Format program can accommodate for defective sectors on the disk except for those near the beginning. In this case, use another disk.

Volume in drive (x:) has no label

This is an informational message displayed in response to the Dir command.

Volume in drive (x:) is (filename)

This is an informational message displayed in response to the Dir command.

WARNING. All data on non-removable disk drive x: will be lost! Proceed with format (Y/N)?

This message appears when you try to format a hard disk. It tells you that all data on the disk will be erased during the format process. Press "Y" (for Yes) if you wish to format the disk. If you do not want to lose the data, copy the files to a different disk before you format the hard disk.

Write fault error writing drive (x:)

This is a device error. See the "Device Error Messages" section in this chapter for information.

Write protect error writing drive (x:)

This is a device error. See the "Device Error Messages" section in this chapter for information.

TERMS

The following terms are used in the MS-DOS User's Guide.

.

This abbreviation means "all files on the disk." The command "copy a:*.* b:" means "copy all files from the disk in drive A to the disk in drive B."

Abort

This is a response you can give to MS-DOS when you see a device error message displayed. "Abort" means "stop the program command currently executing." Type "A" for Abort when you see "Abort, Retry, Ignore?" message.

Application software

Application software is also called software programs. They consist of instructions to the computer, and are written in a computer language. Application programs are usually distributed on floppy disks.

Backup disk

A backup disk is a copy of the MS-DOS master disk (or any other disk) you make with the Diskcopy command (if you have floppy disk drives) or the Copy command (if you have a hard disk). You should always make a backup copy of the MS-DOS master disk before you begin using MS-DOS on a routine basis. Store the master disk in a safe place and use the copy for all activities.

BASIC

BASIC stands for Beginner's All-purpose Symbolic Instruction Code. BASIC is a general-purpose computer language and is the first computer language that many people learn.

Byte

A byte is a unit of measurement used by computers. A byte consists of eight "bits" (binary digits). In a binary numbering system, only two marks are used: 0 and 1. Each of these marks is called a binary digit, or a bit. When you type a Dir command, MS-DOS displays filenames and the size of the files. For example, the size of "myfile.txt" may be 6900, which stands for 6900 bytes.

Command

A command is really a short program that tells MS-DOS how to do a specific task. An example of a command is "Dir", which tells MS-DOS to display a directory listing (the contents of a disk). Some commands are "internal" to MS-DOS; that is, they are not displayed when you display the directory. Other commands, such as Format and Diskcopy, reside on the disk as programs with .EXE extensions. The format program is named FORMAT.EXE, for example.

Control key

A control key, usually abbreviated "Ctrl," is a key that allows you to give MS-DOS special commands such as "stop the last command" and "stop the display from scrolling." To use the control key, press the Control key down at the same time as you press another key. Common control key sequences are Control-C (end a command before it is finished) and Control-S (stop the screen display).

Control-C

This is a control sequence that stops a command while it is running. Control-C is also used to exit EDLIN insert mode.

Control-S

This is a control sequence that stops the screen display from scrolling. See also Control key.

Copy

This is an MS-DOS command. It copies one or more files from one disk to another, or on the same disk.

Default disk drive

The default disk drive is the drive that MS-DOS searches for any filenames you may type. MS-DOS will look for files in the default drive unless you specify a different default drive. The default drive letter is always displayed with the MS-DOS prompt. For example, if the prompt is A>, "A" is the default drive.

Del

Del is a command that you give to MS-DOS. It is short for "Delete" and tells MS-DOS to delete one or more files. A synonym for Del is "Erase."

Device errors

Device errors are errors that MS-DOS displays while reading or writing to devices on your computer. Devices can be printers, disk drives, and the screen display.

Dir

Dir is a command that you give to MS-DOS. It is short for "Directory." When you type "dir", MS-DOS will display the contents of the disk on the default drive. The command "dir b:" displays the contents of the disk in drive B.

Directory

A directory is a table of contents for a floppy disk. The directory contains the names of your files, and also has information on the size of the files and the dates they were created or last modified.

Disk

See Floppy disk and Hard disk.

Disk drive

A disk drive is a piece of hardware that is attached to your computer. A disk drive can be either a floppy or a hard drive. You insert floppy disks into floppy disk drives; hard disk drives are built into the computer. A hard disk can hold more information than a floppy disk.

Disk drives are commonly referred to as the "A" drive and the "B" drive. Hard disks are usually the "C" drive. Your computer manual should tell you which drive is labeled drive A and which drive is drive B. If you have only one disk drive, that is drive A.

Disk operating system

A disk operating system is a group of programs that act as a translator between you and your computer. A disk operating system is usually distributed on floppy disks, although you can copy the programs to a hard disk if you have one.

Drive name

A drive name consists of a drive letter and a colon. A drive name tells MS-DOS what drive to look on for the file. For example, the filename "a:myfile.txt" contains a drive name (a:) that tells MS-DOS to look on drive A for the file named "myfile.txt."

Diskcopy

Diskcopy is an MS-DOS command used to copy disks. This command requires that you use a blank, formatted disk for the new copy.

Editor

An editor is a program that allows you to type text and data on the computer. All editors allow you to move, add and delete characters and lines, and save files. The MS-DOS editor is called EDLIN. This is a line-oriented editor, which means that you can only process text one line at a time. Other types of editors are called screen-oriented editors. These allow you to operate on large portions of text (even the entire

file) at a time. Generally speaking, word processing programs are powerful, screen-oriented editors.

EDLIN

EDLIN is a line-oriented editor that comes with MS-DOS. See also Editor.

Enter key

The Enter key is marked "Return" on some computers. This key is usually pressed after entering data or text. it is also pressed after you have typed a command to MS-DOS.

Erase

Erase is a synonym for the MS-DOS Del command. See also Del.

Error messages

Error messages are displayed on the screen if MS-DOS detects that something went wrong when it tried to process a command or program. Refer to Chapter 5, "Messages," for the appropriate response to each error message.

File

A file is a collection of related information. A file on a disk can be compared to a file folder in a desk drawer. For example, a file folder might contain the names and addresses of your friends. You might name this file "Friends." A file on a disk could also contain the names and addresses of friends. This file could also be named "friends." Programs are also files.

Filename

There are certain rules for naming files on a disk. Filenames can be from 1-8 characters long, and they can have a filename extension. A filename extension is from 1-3 characters long and starts with a period (.). An example of a filename is "myfile.txt". Certain filenames are reserved by MS-DOS and should not be used when naming your files. These filenames are:

aux
con
lst
prn
nul

Filename extension

A filename extension is from 1-3 characters long and starts with a period. Filename extensions are often used to identify files: most application programs supply their own extensions to files they create. All BASIC files use a filename extension of ".bas." See also Filename.

Floppy disk

A floppy disk is a plastic square that consists of a disk (inside) sealed into a protective cover (outside). There is often a write-protect notch on the right side of the disk. A floppy disk is used for storing programs and files. Disks can be either "single-sided" or "double-sided." Single-sided disks store files on only one side of the disk; double-sided disks store information on both sides of the disk.

When you insert a floppy disk in the computer, the disk drive reads the magnetic surface of the disk. This is how information is passed from a disk into the computer's memory. See also Write-protect notch, Memory.

Format

Format is an MS-DOS command that formats blank disks. You must format every disk before it can be used with MS-DOS. Formatting a disk changes it to a format that MS-DOS can use. It also analyzes the disk for defective spots.

Hard disk

A hard disk is a disk that is built into the computer. A hard disk can store much more information than a floppy disk, and the computer can retrieve information from it faster. See also Floppy disk.

Ignore

This is a response to a device error message. It tells the computer to ignore the error and continue processing. Note that this response can damage data on the disk. Type "I" for Ignore when you see the "Abort, Retry, Ignore?" message.

Input

Input is information given to the computer. This information can come from the keyboard (when you type commands), programs, and even other computers. See also Output.

Memory

Memory is synonymous with "computer storage." Most programs come on a floppy or hard disk. They are then transferred into the computer's memory (internal storage) when you run the program. When the program is finished, it is transferred back to the disk. Since a computer's memory is limited, this is an efficient way to run many different programs.

Memory is measured in kilobytes (see also byte). Computers that run MS-DOS commonly have 128K of memory or more.

Monitor

A monitor looks a lot like a television screen. It attaches to your computer (or may come already attached) so that you can communicate with MS-DOS.

MS-DOS master disk

MS-DOS is distributed on one or more floppy disks (called "master disks") along with the user's manuals. You should always make a backup copy of the master disk or disks before you start using MS-DOS on a routine basis. See also Backup disk.

Operating system

An operating system is a group of programs that provides the interface between you (the user) and the hardware (your computer). An operating system translates your commands to the computer so that you can perform tasks such as creating files, running programs, and printing documents.

Output

Output is information that is transferred from the computer to any "output device." Output devices are printers, disk drives, and the screen (monitor). An error message, for example, is output.

Print

This is an MS-DOS command that is used to print files on your computer's printer.

Printer

A printer is a device that is attached to your computer. It allows you to print files so that you have a "hard copy" (paper copy or printout) of the information to store.

Program

A program is a complete set of instructions, written in computer language, that tells the computer exactly how to handle a problem. Some commands in MS-DOS, like Diskcopy, are actually small programs. Programs are stored as files on a disk, and usually have special filename extensions to identify them as programs. A common program file extension is ".COM" (for "command") or ".EXE" (for "executable").

Prompt

The MS-DOS prompt consists of the default drive letter (usually A, B, or C) and a greater-than sign. An example of the MS-DOS prompt is B>.

Rename

This is an MS-DOS command. It is used to rename files. The abbreviation "Ren" can be used in place of the full command name.

Retry

This is a response you can give to MS-DOS in response to "Abort, Retry, Ignore?" following a device error message. Retry means "retry the last command." Usually, you will choose Retry only after you have performed a corrective action (such as closing the disk drive door or inserting the proper disk in the drive). Type "R" for Retry when you see the "Abort, Retry, Ignore" message.

Return key

The Return key is marked "Enter" on some computers. This key is usually pressed after entering data or text. It is also pressed after you have typed a command to MS-DOS.

Software

Software is the internal programs or routines written by programmers to simplify programming and computer operations. These routines allow the programmer to use his own language (English) or mathematics (Algebra) to communicate with the computer. Some examples of software are: operating systems, word processing programs, and spreadsheet programs. Software is also called programs.

Type

This is an MS-DOS command used to display files on the screen.

Word processing

Word processing generally involves using an editor and a text processing program to manipulate text and data in files. (Some word processing programs include both functions.) Word processing allows you to type text and then reformat it--for example, into columns or double-spaced lines. See also Editor.

Write-protect notch

Some floppy disks are protected; that is, you can examine information on the disk but you cannot change it. These disks are called "write-protected" disks. They usually have a small tab (a "write-protect tab") covering a notch on the right side of the disk. You can copy information onto the disk by removing the tab first. If the disk does not have a write-protect notch, you cannot change the information on the disk.

Write-protect tab

The small tab that covers the write-protect notch on the disk. See also Write-protect notch.

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